On the DURATION *of* LIFE *as affected by the* PURSUITS *of* LITE-
RATURE, SCIENCE, *and* ART : *with a Summary View of the
Duration of Life among the Upper and Middle Classes of Society.
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THE series of communications on the Duration of Human Life
which the author of this paper has laid before the Society at
different periods since the year 1845, have, with one exception,
related to distinct and well-defined classes of society—to Sovereigns,
the English aristocracy, and the English gentry, and to the members
of the three learned professions, clerical, legal, and medical. The
paper which forms the exception to the rule, is the one " On the
Duration of Life of the several Professions," which appeared in the
ninth volume of the Society's transactions. In that paper the less
defined classes known as " Literary Men," or as " Literary and
Scientific Men," were treated of jointly with the Army and Navy,
the three learned professions, the professors of the fine arts, and
persons engaged in trade and commerce. Literary and scientific
men were, on that occasion, classed together, though " Chambers's
English Literature " was made to furnish the materials for a distinct
treatment of the literary class. I now propose, by means of mate-
rials obtained from the same sources as those used in former Essays,
to consider the Duration of Life of Literary Men, of Scientific
Men, and of Men engaged in the practice of the Fine Arts; and to
bring this series of Essays to a close by presenting, in one summary,
the Duration of Life in the upper and middle ranks of society.

The present communication, then, will consist of five parts,
namely, 1. The Duration of Life of Literary Men. 2. The Duration
of Life of Scientific Men. 3. The Duration of Life of the Pro-
fessors of the Fine Arts. 4. A comparison of these Three Classes;
and 5. A Summary View of the Duration of Life in the upper and
middle ranks of Society.

I.—*The Duration of Life of Literary Men.*

Between this class and those classes of which I have already treated, or shall have presently to speak, there is a difference worthy of note. The members of royal houses, of the aristocracy, and of the gentry, and the three learned professions, as well as chemists, sculptors, architects, painters, and musicians, constitute well-defined classes, separated from other classes by sufficiently distinct lines of demarcation, or devoted to their several professions as the chief business of their lives. The fine arts, for instance, in their several divisions, are, with few exceptions, practised by men who embrace them as distinct pursuits by which they hope to earn a livelihood and achieve a reputation. It is not so with literature. Our writers, both in prose and verse, are of every rank and profession. Some make of literature merely a subordinate and occasional pursuit; but with others it is as much a profession as divinity, law, or physic, as music, architecture, sculpture, or painting; and it is not practicable to draw any line between the one class and the other. They are mixed up in the nature of things, and could not have been conveniently separated in this Essay. In treating, therefore, of the duration of life of literary men, I must be understood to be speaking of a mixed class, consisting on the one hand, of those who have no one distinct and defined professional calling, but who make literature one of their pursuits, and the duration of whose life is consequently affected by the habits of composition in very various degrees; and, on the other hand, of those with whom literature is a distinct profession.

I have been able to collect from " Chalmers' Biographical Dictionary " with a supplement of facts from the " Annual Register " from 1815 to 1852, 942 ages at death of men more or less devoted to literary pursuits, and of more or less celebrity in different walks of literature. Some of the deceased persons were described as antiquaries, others as historians, others as poets, others as miscellaneous writers, and a small body of authors as schoolmasters. These distinctions I have thought it worth while to retain in the following tables ; giving, at the same time, in a supplemental column, a general total for literature as the one pursuit to which all were more or less earnestly and constantly devoted.

The tables which follow are counterparts of the tables given in former communications to the Society. The first table presents the number of deaths at each age; the second table groups the deaths by periods of five years; the third by periods of ten years; while Table IV presents the average age at death of all the members of the several groups, and of the entire class who died after the ages severally specified in the table.

TABLE I.—*Literature.*

Age.	Antiquaries.	Historians.	School-masters.	Poets.	Miscel-laneous.	Total Literature.
21	....	....	....	2	....	2
22	....	....	....	1	1	2
23	....	....	....	....	....	....
24	....	....	....	2	....	2
25	1	....	....	....	....	1
26	....	....	....	....	....	....
27	....	....	....	1	....	1
28	....	....	....	....	2	2
29	....	....	....	3	1	4
30	1	....	....	2	....	3
31	....	....	....	1	2	3
32	....	....	....	4	2	6
33	....	....	....	6	1	7
34	....	....	....	....	4	4
35	....	1	....	....	2	3
36	....	....	....	5	2	7
37	....	....	1	4	1	6
38	....	....	....	3	....	3
39	1	....	....	....	6	7
40	....	1	1	3	4	9
41	1	....	....	3	1	5
42	....	....	1	1	6	8
43	....	....	1	3	7	11
44	....	1	1	5	7	14
45	2	....	1	4	7	14
46	1	....	....	8	9	18
47	....	....	....	4	6	10
48	4	1	....	4	5	14
49	....	....	....	5	2	7
50	1	1	1	3	6	12
51	1	....	....	5	4	10
52	1	1	2	3	5	12
53	3	1	....	5	6	15
54	3	....	1	4	9	17
55	2	....	2	3	8	15
56	4	3	2	8	20	37
57	1	3	1	6	6	17
58	1	....	2	4	17	24
59	1	1	1	2	8	13
60	3	....	....	3	14	20
61	3	....	1	3	9	16
62	1	1	....	2	12	16
63	7	3	1	4	9	24
64	2	1	2	5	14	24
65	5	2	....	7	9	23
66	3	1	1	2	5	12
67	2	1	....	3	12	18
68	5	1	1	7	15	29
69	4	....	....	8	10	22
70	3	1	3	5	16	28
71	1	....	1	3	11	16
72	11	1	2	6	17	37
73	3	2	1	4	17	27
74	6	3	1	2	16	28
75	8	....	2	2	11	23
76	....	3	3	8	15	29

TABLE I.—*Literature.*—*Contd.*

Age.	Antiquaries.	Historians.	School-masters.	Poets.	Miscel-laneous.	Total Literature.
77	5	1	....	4	14	24
78	4	2	....	4	12	22
79	2	1	2	2	8	15
80	3	2	....	4	13	22
81	3	2	....	2	4	11
82	2	....	....	1	14	17
83	3	2	2	1	9	17
84	2	....	....	4	6	12
85	1	1	....	5	9	16
86	....	....	....	2	10	12
87	4	1	....	1	5	11
88	....	....	1	....	7	8
89	1	....	1	....	2	4
90	....	1	....	1	2	4
91	....	....	....	....	1	1
92	1	....	....	....	2	3
93	....	....	....	....	2	2
94	.. .	....	....	....	2	2
95	....	....	....	....	....	....
96	....	....	....	....	....	....
97	....	....	....	....	1	1
*115	....	....	....	1	....	1
Total	127	47	43	223	502	942

* This is the recorded age at death of T. O'Sullivan, a celebrated Irish bard and author. See "Annual Register," 1820.

TABLE II.—*Literature.*—*Quinquennial Ages.*

Age.	Antiquaries.	Historians.	School-masters.	Poets.	Miscel-laneous.	Total Literature.
21– 25........	1	....	....	5	1	7
26– 30........	1	....	....	6	3	10
31– 35........	....	1	....	11	11	23
36– 40........	1	1	2	15	13	32
41– 45........	3	1	4	16	28	52
46– 50........	6	2	1	24	28	61
51– 55........	10	2	5	20	32	69
56– 60........	10	7	6	23	65	111
61– 65........	18	7	4	21	53	103
66– 70........	17	4	5	25	58	109
71– 75........	29	6	7	17	72	131
76– 80........	14	9	5	22	62	112
81– 85........	11	5	2	13	42	73
86– 90........	5	2	2	4	26	39
91– 95........	1	....	....	....	7	8
96–100........	....	....	....	....	1	1
and upwards ..	....	....	....	1	....	1
Maximum ..	92	90	89	115	97	115

TABLE III.—*Literature.—Decennial Ages.*

Age.	Antiquaries.	Historians.	School-masters.	Poets.	Miscel-laneous.	Total Literature.
⌠21– 25.......	1	....	....	5	1	7
⌡26– 30........	1	....	....	6	3	10
31– 40....⋌..	1	2	2	26	24	55
41– 50........	9	3	5	40	56	113
51– 60........	20	9	11	43	97	180
61– 70........	35	11	9	46	111	212
71– 80..... ..	43	15	12	39	134	243
81– 90........	16	7	4	17	68	112
91–100........	1	....	....	1	8	10
and upwards ..	....	....	....	....	....	....
Total	127	47	43	223	502	942

TABLE IV.—*Literature.—Summary.*

Age.	Antiquaries.	Historians.	School-masters.	Poets.	Miscel-laneous.	Total Literature.
21 and upds..	67·56	67·40	63·91	58·10	65·50	64·05
26 ,, ...	67·90	67·40	63·91	58·92	65·58	64·36
31 ,, ...	68·21	67·40	63·91	59·77	65·81	64·74
41 ,, ...	68·44	68·73	65·15	63·18	67·31	66·56
51 ,, ...	70·15	70·26	67·97	67·91	72·22	69·61

The figures contained in the last of these tables (Table IV), invite examination and comment. The two sections of the literary class headed " Poets " and " Schoolmasters," are found to occupy a low place in the scale, in all the horizontal lines of the table. Whether we commence the register of deaths at 21, at 26, at 31, at 41, or at 51, their average age at death is uniformly below the average for miscellaneous writers, and for antiquarians and historians. As in the case of poets, the ages at death amount to 223, the average is likely to approximate to the true number, and it may be allowable to inquire whether there is anything in the calling of the poet to account for the comparatively short duration of his life.

The first consideration that offers itself in possible explanation of the short duration of the poet's life is, that poets enter the class to which they belong at a comparatively early age, while other literary men, and especially antiquarians and historians, enter their respective classes, and commence their characteristic pursuits at a more advanced period of life. If, as seems highly probable, the class of living poets is always a young class compared with other literary men, the average age at death will be below par. But it is quite possible that the poetical temperament, as it is commonly

called, may be a phase of constitutional weakness, and a cause of early death.

That poets as a class are short-lived is rendered probable by the low recorded ages at death of the Roman poets. Thus, Tibullus died at 24, Persius at 28, Lucilius and Catullus at 46, Virgil at 52, Horace at 57, Ovid at 59, Martial at 75, and Terence at 88. The average for these nine poets is nearly 53 years. On the other hand, the Roman orators, Quintus Hortensius, and Pollio, died at 63 and 80 respectively; Cicero, was killed at 64; and the historians Sallust, Livy, Pliny, and Josephus, attained the respective ages, of 51, 76, 79, and 56. Plato, the philosopher, lived to upwards of 80. These eight died, or were killed, at an average age of about $68\frac{1}{2}$ years ; or nearly 16 years older than the nine poets.

Against these nine names of Roman poets, may be placed, as having been short-lived, the English poets, Kirke White, who died at 21 years of age ; Collins at 36, Parnell and Robert Burns at 37, Goldsmith at 46, Thompson at 48, Cowley at 49, Shakspeare at 52, and Pope at 56. These nine English poets, selected as having been short-lived, attained an average age of about 42 years, or more than 10 years less than the nine unselected Roman poets.

These small groups of facts may perhaps be allowed to furnish a slight confirmation of the general result of the larger body of facts comprised in these tables.

That schoolmasters who devote themselves to literary pursuits should rank next above poets, but decidedly below the other classes in the Table, will not excite surprise when it is borne in mind that in addition to such influence as literary habits themselves may exercise in undermining health and shortening life, the schoolmaster is exposed to the serious drawback of confinement with his pupils during many hours of the day in an atmosphere rarely of the purest. A schoolmaster of literary habits may be expected to suffer in an unusual degree from the evils incident to a sedentary life. If the facts upon which the averages for the class of schoolmasters are founded had been more numerous, I should have attached more importance to these considerations.

On referring to the paper on the Duration of Life of the Members of the several Professions, published in the ninth volume of the Society's *Journal*, it will be seen that the duration of life of the different classes more or less exclusively devoted to the pursuits of literature, differs somewhat from that recorded in the table I am now examining, as the result of the combination of all the classes specified in the table. If we take the last horizontal line in the table, which shows the average age at death of all those persons who died after the age of 50, and compare the figures it exhibits with those of the paper just referred to, we find differences

and coincidences worth observing.   In that paper the average age at death of 356 authors, whose biography is given in "Chambers's English Literature, and who survived the age of 50, is shown to amount to 69·14 years.   The corresponding figures in Table IV are 69·61, or about half a year more.   The 186 members of the French Institute who survived the same age of 50 years, died at an average age of 70·38, being a small fraction of a year in excess of the age at death (70·26) of the 47 historians of Table IV.   The 571 members of the French Academies died at the mean age of 72·47; and the 401 persons devoted to literature and science in England (as taken from the "Annual Register") at 72·10; while the miscellaneous class of the present paper died at 72·22.   In making this comparison between the duration of life of the literary class in England and that of the literary class in France, as obtained from the ages at death of members of the three French Academies and the French Institute, it must, however, be borne in mind that the French lives form a picked class entering the learned societies in question, on an average at from 41 to 46 years of age, while the English lives used in the formation of these tables are subject to no such elimination of deaths at the early ages.   When the comparison is made between members of the French Academies and Institute on the one hand and English *literateurs* on the other, taking in each case the deaths of those who had survived their fiftieth year, it will have to be borne in mind that the foreign admissions to the class under examination, are by selection on the ground of eminence, while the admissions of English literary men take place by natural removal through death of all persons under 50 years of age.

The 942 deaths comprised in the tables are sufficiently numerous to make it desirable to separate them into classes according to the centuries in which they were born.   The results of this separation are shown in the following table :—

TABLE V.—*Centuries.*

Date of Birth.	Number of Deaths.	Average Age at Death.
13th Century	1	78·00
14th ,, ...	4	74·75
15th ,, ...	6	66·33
16th ,, ...	146	63·85
17th ,, ...	301	62·99
18th ,, ...	484	64·78

Of this table it must suffice to observe that it agrees with the majority of similar tables in former essays, in showing a less favour-

able duration of life in persons born in the seventeenth century than in those born in the sixteenth, with a recovery and improvement in persons born during the eighteenth century.

The comparative duration of life of married and single persons belonging to the literary class, follows the rule already established in favour of the married in former essays, as the table will show.

TABLE VI.—*Conjugal Condition.*

	Number of Deaths.	Mean Age.	Greatest Age.
Married	357	64·39	97
Single	34	58·41	92
Difference	....	5·98	5

I shall revert to this subject when I have examined the duration of life of men of science and of artists.

II.—*The Duration of Life of Scientific Men.*

Men of science constitute a comparatively small class of the community. I have, accordingly, been able to bring together from the sources which have supplied the remainder of my facts, only 188 ages at death of men belonging to this class, grouped under the three heads of 1. Mathematicians and Astronomers; 2. Chemists and Natural Philosophers; and 3. Naturalists. This last group comprises botanists, mineralogists, and geologists. There is no great difference in the duration of life of these three groups. Between the mixed group of mathematicians with astronomers, on the one hand, and naturalists, on the other, the difference amounts only to a small fraction of a year, and between the first named class and chemists with natural philosophers, to about one year and a quarter.*   The facts are given in detail in Tables I, II, III, and IV.

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* In the paper "On the Duration of Life in the Members of the several " Professions," the duration of life of the single class of chemists, 41 in number, as taken from " Thomson's History of Chemistry," is 69·51, instead of 72·67 for the mixed class of chemists and natural philosophers.

TABLE I.—*Science.*

Age.	Mathematicians and Astronomers.	Chemists and Natural Philosophers.	Naturalists.	Total Science.
21	....	....	....	....
22	1	....	....	1
23	....	....	....	....
24	....	....	....	....
25	....	....	....	....
26	1	....	....	1
27	.. .	....	....	....
28	1	....	1	2
29	....	....	....	....
30	....	....	....	....
31	....	....	....	....
32	....	....	....	....
33	....	....	....	....
34	1	....	....	1
35	....	....	....	....
36	2	....	....	2
37	1	....	1	2
38	....	....	1	1
39	2	....	....	2
40	2	....	....	2
41	....	....	....	....
42	1	....	1	2
43	....	....	....	....
44	1	....	....	1
45	1	....	2	3
46	1	....	1	2
47	2	....	1	3
48	2	....	....	2
49	1	....	1	2
50	2	....	....	2
51	1	....	....	1
52	1	....	....	1
53	....	....	1	1
54	1	2	....	3
55	1	2	....	3
56	1	....	1	2
57	4	....	....	4
58	1	....	....	1
59	1	....	....	1
60	....	1	2	3
61	2	1	2	5
62	1	....	4	5
63	1	1	2	4
64	3	2	2	7
65	2	1	....	3
66	1	2	2	5
67	6	3	1	10
68	1	1	2	4
69	1	....	4	5
70	....	....	4	4
71	1	3	1	5
72	3	3	4	10
73	....	1	2	3
74	2	1	1	4
75	2	1	2	5

TABLE I.—*Science.—Contd.*

Age.	Mathematicians and Astronomers.	Chemists and Natural Philosophers.	Naturalists.	Total Science.
76	2	1	3	6
77	1	1	1	3
78	1	2	....	3
79	2	2	....	4
80	1	....	3	4
81	5	1	3	9
82	1	3	1	5
83	....	....	2	2
84	1	3	....	4
85	2	1	....	3
86	....	2	1	3
87	2	1	....	3
88	....	1	1	2
89	....	....	....	....
90	3	....	....	3
91	2	....	1	3
92	....	....	1	1
	82	43	63	188

TABLE II.—*Science.—Quinquennial Ages.*

Age.	Mathematicians and Astronomers.	Chemists and Natural Philosophers.	Naturalists.	Total Science.
21– 25	1	....	....	1
26– 30	2	....	1	3
31– 35	1	....	....	1
36– 40	7	....	2	9
41– 45	3	....	3	6
46– 50	8	....	3	11
51– 55	4	4	1	9
56– 60	7	1	3	11
61– 65	9	5	10	24
66– 70	9	6	13	28
71– 75	8	9	10	27
76– 80	7	6	7	20
81– 85	9	8	6	23
86– 90	5	4	2	11
91– 95	2	....	2	4
96–100	....	....	....	....
Maximum	91	88	92	92

TABLE III.—*Science.—Decennial Ages.*

Age.	Mathematicians and Astronomers.	Chemists and Natural Philosophers.	Naturalists.	Total Science.
21– 25	1	....	....	1
26– 30	2	....	1	3
31– 40	8	....	2	10
41– 50	11	....	6	17
51– 60	11	5	4	20
61– 70	18	11	23	52
71– 80	15	15	17	47
81– 90	14	12	8	34
91–100	2	....	2	4
Total	82	43	63	188

TABLE IV.—*Science.—Summary.*

Age.	Mathematicians and Astronomers.	Chemists and Natural Philosophers.	Naturalists.	Total Science.
21 and upwards........	63·13	72·67	67·33	66·72
26 ,, ...	63·68	72·67	67·33	66·96
31 ,, ...	64·57	72·67	67·97	67·61
41 ,, ...	67·60	72·67	68·98	69·33
51 ,, ...	71·40	72·67	71·58	71·81

Though the number of facts in the foregoing tables is small, I have thought it worth while to group them according to the centuries in which the several members of the class of scientific men were born. The following table shows the result of this arrangement:—

TABLE V.—*Science.— Centuries.*

Date at Birth.	Number of Deaths.	Average Age at Death.
16th century	15	61·66
17th ,, ...	64	65·37
18th ,, ...	102	68·25

This table, instead of presenting like the corresponding tables for other classes, a lower duration of life in scientific men born in the seventeenth century than in those born in the sixteenth century, with an improvement in those born in the eighteenth century, shows

a progressive improvement in the duration of life throughout the three centuries comprised in the table. But it will be seen that the average for the sixteenth century is based upon the inadequate number of fifteen facts.

The small number of facts will also account for the exceptional result shown in the following table, in which, as on previous occasions, the married members of the class of scientific men are compared with the single, slightly to the advantage of the single men. The greatest age shows an equally slight advantage for the married.

TABLE VI.—*Science.—Conjugal Condition.*

	Number of Deaths.	Mean Age.	Greatest Age.
Married	50	65·68	92
Single	12	66·25	91
Difference	....	0·57	1

III.—*The Duration of Life of the Professors of the Fine Arts.*

This class consists of several sub-classes constituting so many distinct professions, among which, though with some misgiving as to the propriety of the classification, I have admitted the class of actors and vocalists. One class (that of sculptors) consists of only 14 members, and is, therefore, too small to require separate notice. Of the remaining classes, the one which implies the most sedentary occupation, namely, the class of engravers, yields the lowest average (67·91). Painters, whose employment is less sedentary, but who are much confined within doors, have a slight advantage over engravers; and engineers, architects, and surveyors, who combine the sedentary pursuits of the draughtsman with active superintendence out of doors, have a still more favourable average. Musicians take rank with this last class; and actors and vocalists seem to have some slight advantage over the sedentary and confined classes of engravers and painters. The precise figures will be found in the following tables.

It is worthy of remark, that among literary men, as among the class now under consideration, the sub-class most devoted to sedentary pursuits (namely schoolmasters) had also an unfavourable duration of life.

TABLE I.—*Art.*

Age.	Engineers, Architects, and Surveyors.	Sculptors.	Painters.	Engravers.	Musicians.	Actors and Vocalists.	Total. Art.
21	....	....	....	1	....	....	1
22	....	....	....	....	....	....	....
23	....	....	....	....	....	....	....
24	....	....	....	....	....	....	....
25	....	....	....	....	....	....	....
26	....	....	....	....	....	....	....
27	....	....	....	....	....	....	....
28	....	....	....	....	....	....	....
29	....	....	1	....	....	....	1
30	....	....	....	....	....	....	....
31	....	....	....	....	....	....	....
32	....	....	....	....	....	....	....
33	....	....	....	....	....	....	....
34	....	....	1	....	....	....	1
35	....	....	1	....	....	....	1
36	....	....	...	....	..	....	....
37	....	....	1	....	1	....	2
38	....	....	1	....	....	1	2
39	....	....	...	....	....	....	....
40	1	....	4	1	....	1	7
41	....	....	....	....	....	....	....
42	....	....	....	1	1	....	2
43	....	....	. .	....	1	....	1
44	2	1	1	2	....	1	7
45	....	....	1	1	....	1	3
46	....	....	1	1	....	1	3
47	1	....	1	....	....	....	2
48	1	....	2	....	....	....	3
49	2	....	3	1	....	2	8
50	....	1	....	1	2	....	4
51	....	3	1	....	....	....	4
52	....	....	2	1	....	1	4
53	....	....	5	1	....	....	6
54	....	....	3	2	1	....	6
55	1	....	1	2	....	2	6
56	2	2	3	1	....	1	9
57	....	....	....	3	....	2	5
58	1	....	6	1	1	....	9
59	1	1	....	1	1	1	5
60	3	1	6	....	2	1	13
61	2	....	2	....	....	....	4
62	3	2	1	3	2	1	12
63	....	....	4	3	3	....	10
64	1	....	5	3	....	....	9
65	3	....	3	2	1	1	10
66	4	....	1	3	....	2	10
67	1	....	2	....	....	....	3
68	1	....	5	....	2	....	8
69	2	....	4	1	2	1	10
70	4	1	4	2	2	4	17
71	1	....	2	1	2	2	8
72	1	1	1	3	1	2	9
73	1	....	....	1	4	2	8
74	4	....	2	3	...	1	10

TABLE I.—*Art.—Contd.*

Age.	Engineers, Architects, and Surveyors.	Sculptors.	Painters.	Engravers.	Musicians.	Actors and Vocalists.	Total. Art.
75............	2	....	6	....	2	1	11
76............	2	....	1	....	3	2	8
77............	5	....	2	....	1	1	9
78............	3	....	4	1	....	1	9
79............	1	....	1	2	....	1	5
80............	4	....	1	....	2	....	7
81............	....	....	1	....	1	....	2
82............	2	....	3	1	....	....	6
83............	3	....	1	....	1	1	6
84............	3	....	1	....	1	....	5
85............	1	....	2	3	....	....	6
86	2	1	1	....	1	....	5
87............	....	....	1	1	....	....	2
88............	....	....	1	....	1	1	3
89............	1	....	....	1	....	....	2
90............	1	....	1	1	1	....	4
91............	1	....	1	....	1	1	4
92............	1	....	....	....	....	....	1
93......	1	....	1	....	....	....	2
94............	....	....	....	....	....	....	.. .
95............	....	....	....	....	....	....	....
96............	....	....	1	....	1	....	2
	76	14	111	56	45	40	342

TABLE II.—*Art.—Quinquennial Ages.*

Age.	Engineers, Architects, and Surveyors.	Sculptors.	Painters.	Engravers.	Musicians.	Actors and Vocalists.	Total. Art.
21– 25........	....	....	....	1	....	....	1
26– 30........	....	....	1	....	....	....	1
31– 35........	....	....	2	....	....	....	2
36– 40........	1	....	6	1	1	2	11
41– 45........	2	1	2	4	2	2	13
46– 50.......	4	1	7	3	2	3	20
51– 55	1	3	12	6	1	3	26
56– 60	7	4	15	6	4	5	41
61– 65........	9	2	15	11	6	2	45
66– 70........	12	1	16	6	6	7	48
71– 75........	9	1	11	8	9	8	46
76– 80........	15	....	9	3	6	5	38
81– 85........	9	....	8	4	3	1	25
86– 90........	4	1	4	3	3	1	16
91– 95........	3	....	2	....	1	1	7
96–100	....	....	1	....	1	....	2
Maximum ..	93	86	96	90	96	91	96

TABLE III.—*Art.*—*Decennial Ages.*

Age.	Engineers, Architects, and Surveyors.	Sculptors.	Painters.	Engravers.	Musicians.	Actors and Vocalists.	Total. Art.
21– 25........	....	....	....	1	....	....	1
26– 30........	....	....	1	....	....	....	1
31– 40........	1	....	8	1	1	2	13
41– 50........	6	2	9	7	4	5	33
51– 60........	8	7	27	12	5	8	67
61– 70........	21	3	31	17	12	9	93
71– 80........	24	1	20	11	15	13	84
81– 90........	13	1	12	7	6	2	41
91–100........	3	....	3	....	2	1	9
Totals	76	14	111	56	45	40	342

TABLE IV.—*Art.*—*Summary.*

Age.	Engineers. Architects, and Surveyors.	Sculptors.	Painters.	Engravers.	Musicians.	Actors and Vocalists.	Total. Art.
21 & upds.	69·95	58·57	64·20	63·80	69·44	64·97	65·90
26 ,, ...	69·95	58·57	64·20	64·58	69·44	64·97	66·03
31 ,, ...	69·95	58·57	64·52	64·58	69·44	64·97	66·14
41 ,, ...	70·35	58·57	66·60	65·03	70·18	66·34	67·25
51 ,, ...	72·39	60·50	68·47	67·91	72·57	69·33	69·56

The 342 persons comprised in these tables, when grouped according to the centuries in which they were born, were found to have attained the average ages stated in the following table.

TABLE V.—*Arts.*—*Centuries.*

Date of Birth.	Number of Deaths.	Average Age at Death.
16th century	5	62·60
17th ,, ...	39	65·51
18th ,, ...	298	66·42

Though the small number of deaths in the first line renders the comparison embodied in the table of little value, it may be observed in passing that the general results agree with those obtained for men of science. This group of facts makes no addition to our information on the subject of the relative duration of life of the married and

single.   The abstracts do not contain any instance in which it is stated that the deceased person was unmarried.   Fifty-five persons stated to have been married attained an average of 65·56 years.

IV.—*Literature, Science, and Art compared.*

The following table shows the average ages at death of the three classes which have just been separately examined, with the number of facts on which the averages are based.

Age.	Literature.	Science.	Art.
	(942 *Deaths*)	(188 *Deaths*)	(342 *Deaths*)
21 and upwards	64·05	66·72	65·90
26 ,, ...	64·36	66·96	66·03
31 ,, ...	64·74	67·61	66·14
41 ,, ...	66·56	69·33	67·25
51 ,, ...	69·61	71·81	69·56

It results from this table that whatever the age selected as the basis of the calculation, scientific men have the most favourable duration of life.   The professors of the Fine Arts come next in order, when the younger members of the several professions are included in the averages ; but if we exclude all deaths under 50 years of age, the resulting figures for literature and art differ very little indeed.   The table, taken as a whole, seems to prove that the pursuits of literature are favourable to longevity, but destructive to life at the earlier periods.

V.—*Summary view of the Duration of Human Life.*

The several communications which I have addressed to the Society since the year 1845, on the Duration of Life, afford materials which enable me to present a larger view of this subject than has been hitherto possible.   I am able to bring together a sufficient body of facts to determine :—1. The duration of life at different periods; 2. The comparative value of life in the married and single; 3. The comparative duration of life in the two sexes ; and 4. The duration of life as affected by social position and by professional occupation.

1. *The Duration of Life at different periods.* — By bringing together the facts contained in my several communications to the Society, I am able to show the duration of life in the several centuries of the Christian Era by means of the ages at death of 8,499 adult males.   The result, with the number of facts on which the several averages are based, is shown in the following table.

TABLE I.—*Summary.—Centuries.*

Date.	Number of Facts.	Average Age at Death.	Remarks.
First five Centuries	45	52·02	All sovereigns.
6th to 10th centuries	106	51·66	All sovereigns but one.
11th century	62	54·95	All sovereigns but three.
12th ,, ...	89	53·88	All sovereigns but four.
13th ,, ...	133	52·71	117 sovereigns.
14th ,, ...	147	53·50	121 ,,
15th ,, ...	249	57·16	176 ,,
16th ,, ...	1,334	64·23	Mixed classes.
17th ,, ...	3,464	60·36	,,
18th ,, ...	2,870	63·41	,,

The figures in this table are in harmony with those of the greater number of corresponding tables in former essays, in as much as they show a lower value of human life among persons born in the seventeenth century than among those born in the sixteenth century, with a marked recovery in those born during the eighteenth century. This curious and interesting feature of the table presents itself also in the tables for the Peerage and Baronetage, for the English Gentry, for Professional Persons, for the Clergy, and for Literary Men, and also for Females of the upper classes, while the tables for Sovereigns, for Medical Men, and for Artists show a progressive improvement, and the table for Lawyers a progressive deterioration. The results displayed in this summary table are not therefore, to be looked upon as the expression of the exceptional state of some one class determining by its own high numerical values the average results of the aggregate of ranks and professions. They are to be regarded as a general truth, of which, I confess that no satisfactory explanation offers itself. I may, however, observe, that of the causes of death recorded in the abstracts from which the figures in the table are taken, a third in persons born in the seventeenth century, and only a fifth in persons born in the eighteenth century, are from Ague, Fever, Dysentery, Small-pox, Plague, and Consumption, diseases which prove fatal chiefly to young and middle aged adults.

Though I do not attach great importance to the causes of death assigned in biographies, I subjoin a tabular statement of the assigned causes in the three centuries now under review. The large number of deaths attributed to Fever in persons born during the seventeenth century, and the improvement in this respect among persons born during the eighteenth century, is deserving of notice. The reform which was effected in our gaols after 1774, probably had some share in the result; for our prisons were active foci of infection to the rest of the population.

TABLE II.—*Summary.—Diseases.*

Fatal Diseases.	16th Century.	17th Century.	18th Century.
Plague	2	1	....
Ague	2	2	....
Fever	9	47	29
Small Pox	2	6	1
Diarrhœa and Dysentery	4	6	1
Consumption	6	19	28
Total	25	81	59
Total of assigned causes (including the above)	65	245	301
All causes (including the above)	502	1,050	829

2. *The Duration of Life in the Married and Single.*—I am able to compare 976 instances in which the fact of marriage is stated with 83 instances in which the deceased persons are stated not to have been married. The average and extreme ages at death of the two classes are shown in the annexed table.

TABLE III.—*Summary.—Conjugal Condition.*

	Number of Deaths.	Mean Age.	Greatest Age.
Married	976	66·77	100
Single	83	62·06	92
Difference	....	4·71	8

Though the averages in this table are founded upon very unequal numbers of facts, it is probable that they represent a general truth. The difference of nearly 4¾ years is much too considerable to be accounted for by the inequality in numbers. It may also be well to observe that the 83 cases are all instances in which the fact of celibacy is stated in the biographies, and that instances of death before the age at which marriage ordinarily takes place are not included.

3. *The Duration of Life in the Two Sexes.*—In an earlier volume of the *Journal* of the Society, tabular comparisons are made between the ages at death and expectation of life of the male and female members of the upper classes of society, from which it appears that females have a longer duration of life, and a better expectation for every age from 25 to 75. As the greater value of female life is universally known and acknowledged, I shall not enlarge further upon this topic, but content myself with referring to my paper on

the duration of life among the English Gentry and Aristocracy, which will be found at page 37, of volume ix, of the *Journal* of the Society.

4. *The Duration of Life as affected by Social Position and by Professional Occupation.* — The time has not yet arrived for presenting in one summary the duration of life of the several ranks and classes of society. Some of the materials required for this purpose are still wanting, and those which we have are not all of the best quality. Some of our averages, for instance, are deduced from too small a body of facts, while others relate to sections of the community not easily separated from the remainder by sharp and well-defined boundaries. We may imagine the subject of the duration of human life treated as a branch of science—the whole community being parcelled out into large classes, and these classes in their turn reduced to numerous subdivisions. We should have at least six leading classes—an independent class, a professional class, a trading class, a working class, a dependent class, and a criminal class; and each of these would be found to consist of many distinct elements. The figures contained in the present communication, and in former essays, will enable me to treat of the duration of life of the first two of these classes, namely, the independent and the professional class. I propose to place the facts relating to these two classes in order; but before doing so, I must revert for a moment to the sources from which the facts have been derived. They have been carefully abstracted from several works of an analogous kind; from the " Peerage and Baronetage," from County Histories, from the "Annual Register," from the " Gentle- " man's Magazine," from " Chalmers' Biographical Dictionary," and from the " Art de Verifier les Dates," a French work of acknowledged authority. Deaths by accident or violence have been always carefully excluded ; so that the figures represent the average duration of life of those members of the several classes and sub-classes who have died natural deaths. I may further observe, that the successive papers have been arranged in the same way, and after the same plan, so that the summary view I am about to offer could be prepared without much difficulty, and with little chance of error. To make this summary view as complete as possible, I propose to append to each average a reference to the volume and page of the Society's *Journal* in which the original figures are to be found; and in order to use as few figures as possible, I shall give in every case the mean age attained by such members of each class as had survived their thirtieth year. The age thus stated will either be the simple mean of all deaths occurring after that age, or the calculated expectation of life at 30 added to 30. As I find that the average age at death thus calculated differs by a very small fraction of a year from the expecta-

tion added to the age; I shall use the one or the other indifferently, as I find convenient.

After this explanation, I proceed to present the summary view of which I have been speaking, under the two heads of—1. Persons of independent means; and 2. Professional persons.

(1.)—*The Duration of Life of the Independent Class.*

The average age at death of male Sovereigns who have borne rule within the Christian Era, founded on the deaths of so many out of 1,440 as had survived the age of 30. (*Journal* of Statistical Society, vol. x., p. 62) is .... 57·16

The average age at death of male members of the English peerage and baronetage, similarly founded on 2,291 deaths, abstracted from " Sharpe's Peerage " and " Debrett's Baronetage." (*Journal* of Statistical Society, vol. viii., p. 69) is .... 60·88

The average age at death of male members of the English gentry, similarly founded on 2,455 facts abstracted from certain county histories. (*Journal* of Statistical Society, vol. ix., p. 37) is .... 61·24

The three orders of facts here presented are not strictly comparable facts, for the kings whose ages at death were abstracted from the " Art de Verifier les Dates " lived in different countries at different periods of time, while the peerage and baronetage lived and died in every part of the United Kingdom, and the gentry in certain only of our English counties. The figures 57·16, 60·88, and 61·24 can only be taken as fair representatives of the value of life in the three classes thus compared, if it shall appear that similar differences and a similar relative position obtain, when these same classes are compared for the same period of time. Such a comparison was made in the ninth volume of the Society's *Journal*, by placing side by side the average ages attained by those members of the Royal houses, the English aristocracy, and the English gentry, whose deaths are recorded in the obituaries of the " Annual Register " during the years from 1758 to 1843 inclusive.

The male members of Royal Houses dying upwards of 30 years of age, 97 in number (*Statistical Journal*, vol. ix., p. 46), attained on an average the age of.. 64·04

The male members of the English aristocracy, 1,179 in number, attained an average of .... 67·31

The male members of the families of the English gentry, 1,682 in number, attained an average of .... 70·22

It will be seen, then, that when the ages at death of the three classes of male members of Royal Houses, male members of the English aristocracy, and male members of the families of the English gentry are abstracted from the same source, for the same period of

time, and with the same principle of selection, the average durations of their lives follow the same order as when all the members of the respective classes are included.   The figures are worth repeating.

	Whole Class.	Part of Class.
Sovereigns and royal houses	57·16	64·04
English aristocracy	60·88	67·31
English gentry	61·24	70·22

These two groups of figures certainly confirm each other, and seem to justify the statement that˙the value of life among the independent class decreases as the social rank approaches the highest. It is reasonable to suppose that luxury increases, and the motives to wholesome exertion of mind and body are lessened as we ascend from the English gentry, through the English aristocracy to the more mixed class of Sovereigns or members of Royal Houses; while the families of the English gentry comprise a very considerable body of persons who have been more or less dependent, at some period or other of their lives, on professional exertions for their support.   The families of the English gentry may be said, indeed, to form, in this respect, a link between the aristocracy and the professions, sharing the luxury of the one and the intellectual labours of the other, and receiving into its ranks the children of those who have achieved wealth and social position by the pursuits of commerce, manufacture, and trade.

The inference which the figures drawn from the "Annual Register" suggest in favour of mental and bodily employment, and against luxury and want of occupation, is certainly strengthened by facts drawn from the same source, and given at p. 349 of vol. ix. of the *Journal* of the Society.

The learned professions, with 1,483 recorded deaths, give an
  average duration of life of .... 68·86
Trade and commerce, with 513 deaths, yield .... 68·74
Officers of the army and navy, with .935 deaths .... 67·59
English literature and Science, with 395 deaths .... 67·55
The fine arts, with 239 deaths .... 65·96

Of these five leading classes, one only, the Professors of the Fine Arts, show a less favourable duration of life than the English aristocracy, and even the professors of the fine arts are more favourably circumstanced than the members of Royal Houses.

Nor is the inference against luxury and want of employment weakened when the five classes just compared are resolved into their constituent sub-classes.

The clergy, 945 in number, attain an average age of .... 69·49
Trade and commerce, 513 in number .... 68·74
Officers of the royal navy, 366 in number .... 68·40
Lawyers, 294 in number .... 68·14
English literature and science, 395 in number .... 67·55
Members of the medical profession, 244 in number .... 67·31
Officers of the army, 569 in number .... 67·07
The fine arts, 239 in number .... 65·96

All the members of this larger list have a more favourable dura-
tion of life than the members of Royal Houses, and five out of the
eight, present a more favourable figure than the English aristocracy.
For the aristocracy and the members of the medical profession, the
figures are precisely the same ; but the aristocracy has a slight
advantage over officers of the army who are recruited largely from
its ranks, and a still greater advantage over the professors of the
fine arts.

The figures which represent the value of life in the independent
class would seem to warrant the inference that the duration of life is
greatly curtailed by luxury and inadequate occupation. The class
which comprises the largest number of persons who may be presumed
to have had occasion to exert themselves, and which receives the
largest number of recruits from the ranks of the industrious portion
of the community (I mean the English gentry), has also the most
favourable duration of life. The question, then, naturally suggests
itself—Is the duration of life favourably affected in those members of
the English aristocracy who may be said to have a profession de-
manding full occupation of the mind ? Diplomacy is such a profes-
sion, and the duration of life of diplomatists and statesmen affords an
answer to this question. I have at hand the duration of life of 79
diplomatists and statesmen, taken from the pages of " Chalmers'
" Biographical Dictionary." With rare exceptions they are members
of the English aristocracy, and their average age at death, calculated
in the same way as the other averages now under consideration (that
is to say, the average age of all who had survived their thirtieth year),
is no less than 73·65, an average in excess of the corresponding figures
for the English aristocracy by more than 6 years.

As, however, the admission into the class of English statesmen
does not take place till a much more advanced period of life than
30 years, the just comparison between statesmen and the aristocracy,
of which they form the most active section, will consist in such
members of the two bodies as have passed their fiftieth year. The
figures for this age in the classes now under consideration are as
follows :—

Members of Royal Houses .... 68·54
Aristocracy .... 71·69
Gentry .... 74·00
Statesmen .... 77·71

This very favourable duration of life of statesmen and diplomatists, when compared even with the English gentry, affords some ground for believing that a life of active mental occupation may completely counteract the injurious effects of luxury, and its frequent concomitant, want of occupation and object.

(2.)—*The Duration of Life of the Professional Class.*

Under this title I propose to treat of the duration of life of the three learned professions, and of persons devoted more or less exclusively to the pursuits of literature, science, and art. The facts for both these leading divisions are obtained from "Chalmers' Biogra-"phical Dictionary," supplemented by the "Annual Register."

The clergy, 902 in number (*Journal* of the Statistical Society,
vol. xiv., p. 289), attained the average age of........................ 66·42
Lawyers, 137 in number, (*Journal* of the Statistical Society,
vol. xx., p. 65), of.. 66·51
Medical men, 174 in number (*Journal* of the Statistical
Society, vol. xvii., p. 16), of .... 67·04

According, then, to these facts, obtained in the same manner from the same sources, the members of the three professions take rank, in point of longevity, as follows :—

Medical men 67·04; Lawyers 66·51; Clergy 66·42.

Such is the order assigned to the three learned professions when their more eminent members are brought together from the pages of a biographical dictionary, with some additions from the obituaries of the "Annual Register;" but when all the facts relating to the three learned professions are extracted from the obituaries of the "Annual "Register," from the earliest issue of that work to a comparatively recent period, the relative position of the three professions is changed, and the average duration of life is as follows:—

Clergy 69·49; Lawyers 68·14; Medical men 67·31.

The less select classes taken from the obituaries of the "Annual "Register" differ, therefore, more from each other than the more select classes, who find a place in the pages of a Biographical Dictionary. It may be well to place the two orders of averages side by side.

	More Distinguished Members.	Less Distinguished Members.
Clergy	66·42	69·49
Lawyers	66·51	68·14
Medical men	67·04	67·31

The comparison here instituted would seem to lead to the inference, that high professional distinction is only to be attained by a sacrifice of health and vigour, leading to some curtailment of life.

The duration of life of persons devoted to the several pursuits of science, literature, and art, has already been examined in this essay. The three pursuits were found to take rank as follows :—

<div align="center">Science 67·61; Art 66·14; Literature 64·74.</div>

The less select classes, whose ages at death are recorded in the " Annual Register," attained the following average ages :—

<div align="center">Literature and Science jointly 67·55; Art 65·96.</div>

If we combine into one class the persons devoted to literature and science, whose ages at death were taken from Chalmers' Biography, supplemented by the " Annual Register," we obtain as the average duration of life of this more select mixed class 65·22 ; and we are able to compare the more distinguished with the less distinguished members of the two classes, literature and science, and art.

	More Distinguished Members.	Less Distinguished Members.
Literature and science	65·22	67·55
Art	64·74	65·96

So that here also it would seem that the higher distinctions of literature, science, and art are purchased by a sacrifice of health and vigour leading to a curtailment of life.

It now only remains that I should compare the two classes of independent and professional persons with each other, so as, if possible, to arrive at some general principles of practical application to the business of life. For this purpose it will be convenient to consider the English gentry as an intermediate class between the aristocracy and the professions, leaving kings and members of Royal Houses out of the comparison. The following figures represent the average age at death of all members of these classes who have passed their thirteth year; all the figures being taken from the " Annual " Register " for the same period of time.

English aristocracy	67·31
English gentry	70·22
Learned professions	68·86
Trade and commerce	68·74
Officers of the army and navy	67·59
English literature and science	67·55
The fine arts	65·96

The mixed class of the English gentry, occupying, as they do, an intermediate position between the aristocracy and the professions,

largely devoted to healthy rural pursuits and manly English sports, recruited from the most energetic and successful of the professional and industrial classes, more occupied than the aristocracy, less anxious than the professions, less ambitious than the votaries of literature, science, and art, is distinguished from the classes above and below it by a more favourable duration of life. The aristocracy, more luxurious and less generally occupied, pays for its perilous advantages of social position with some few years of life, occupying an intermediate place between the mixed cultivators of literature and science and the short-lived devotees of art. This unfavourable position of the aristocracy would seem to be dependent, not on any inherent weakness of consti-tution (for statesmen, who are for the most part members of that class, attain to a very favourable duration of life), but to that cause which Celsus, nearly 2,000 years ago, pointed out as the parent of a large family of diseases unknown to less artificial modes of existence —luxury. This serious evil, which it is not less the interest of the aristocracy itself than of the nation at large to see abated, can only be counteracted by maintaining, and, if possible, increasing the avenues to suitable occupation which the political constitution and social habits of this country provide. The curtailment, in the case of so important and influential a class, of existing opportunities of employment, and of existing stimulants to an honourable ambi-tion, would be an evil for which the most promising theoretical improvements in the constitution of the country might prove but a sorry compensation.